RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

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Dr. Elliott Levinthal
Department of Genetics--IRL, S047
Stanford University Medical Center
Stanford, California 94305

Dear Elliott,

I received recently the Lesgold-Greeno proposal to SUMEX-AIM and a set of papers that are related to the proposal. Here are my comments.

The main objective of this research is understanding of the reading comprehension process and of relationships between certain cognitive parameters (e.g. short term memory, word decoding processes) and certain reading inadequacies. The scientific work, both empirical and theoretical seems to me well conceived and of high quality. The use of ACT in the SUMEX-AIM framework is likely to facilitate the model building aspects of this research. This is essentially work on information processing models in cognitive psychology with some possible implications on applications to reading instruction. The methodologies needed for theoretical development in this area strongly overlap with work in AIM. The investigators face problems of interpretation and diagnostic reasoning, and they wish to use AI techniques for building a theory which accounts for the interaction between certain "surface processes" (i.e. word decoding) and related "deep processes" which involve world knowledge and summary representations of previous decodings. They may benefit in their work from the intellectual environment of AIM, and they may contribute to its enrichment. I see the main relevance to AIM goals at the level of AI methodology and techniques, and concern with applications of AI to scientific inquiry of psychological processes. Also, this is a good example of dissemination of previous AIM work and increasing collaborations in the AIM community. I recommend approval of this proposal.

Sincerely,

Saul Amarel
Professor and
Chairman

SA/kb